

Hamilton Public Health

Hamilton Opioid Action Plan Initiatives Evaluation Report

Epidemiology & Evaluation

Appendix “A” to Report BOH25016

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Context

In February 2023, Hamilton Public Health staff were directed to convene local stakeholders, including people with lived and living experience as well as health and drug policy experts, to develop an evidence-based harm reduction action plan to address high rates of opioid-related deaths. In the direction to staff, Board of Health also directed that these consultations and action plan consider how to implement safer use spaces and other evidence-based harm reduction strategies in the City of Hamilton and in the houseless serving sector.

Staff brought this request to the Hamilton Drug Strategy for collaborative action and to develop a local opioid action plan. In June 2023, the Hamilton Opioid Action Plan was presented to the Public Health Committee and City Council. The plan outlined 13 areas of action, which would be led by the Hamilton Drug Strategy, and recommended areas for municipal investment to support implementation. This included funding for staffing support, a Drug Checking and Surveillance System Pilot (\$168,000) and a Supervised Consumption Site Pilot at a men’s shelter (\$667,000). This was approved by the Public Health Committee on June 12, 2023, and City Council on June 21, 2023. To oversee the implementation of the Hamilton Opioid Action Plan, a working group, called the Hamilton Opioid Action Table, was struck under the Hamilton Drug Strategy.

The Supervised Consumption Site Pilot was initiated by City of Hamilton Housing Services through a Call for Applicants, and no applications were received. The Hamilton Opioid Action Table then received a collaborative proposal submitted by three men’s emergency shelters – Good Shepherd, Mission Services, and Salvation Army – for a 12-month Embedded Harm Reduction Pilot. In addition to this proposal, the Hamilton Opioid Action Table put forward two additional recommendations to support funding for a current safer use space operating in the community, and to implement a peer support initiative as alternative strategies to utilize the approved \$667,000 to support ongoing harm reduction programming in the community. These amendments were approved by City Council on April 12, 2024, and allocated \$300,000 towards the Embedded Harm Reduction Pilot, \$300,000 towards the YWCA Hamilton’s Safer Use Space, and \$67,000 towards a Peer Support Program. At this time, Hamilton Public Health was also directed to evaluate these initiatives.

The purpose of this evaluation report is to describe each of the programs that received municipal investment, how they were implemented, and their impacts during the funding period. It is important to note that the Peer Support Program was meant to support unhoused people who used substances, including those living in encampments. Hamilton’s Encampment Protocol was rescinded prior to the program being launched. As such, the program did not proceed and is not included in this report.

Embedded Harm Reduction Pilot

What is the Embedded Harm Reduction Pilot?

The goal of the Embedded Harm Reduction Pilot was to enhance and expand harm reduction services, principles, and practices in men’s emergency shelters. The intention was that the program would bring flexible, timely, and consistent harm reduction services to clients and build capacity among shelter staff in harm reduction. The program aligned with the newly released Hamilton’s Emergency Shelter Standards, which committed housing service providers to a harm reduction approach.¹

Funding for the Embedded Harm Reduction Pilot was divided evenly between Good Shepherd, Mission Services, and Salvation Army (\$100,000 for each organization). The pilot was based on an existing Mission Services outcome-based harm reduction program, where Embedded Harm Reduction Workers support clients with goals focused on employment, housing, familial reconciliation, treatment, and physical and mental health. As such, Mission Services was responsible for sharing their program model with the other organizations and took a leadership role in reporting program data and convening the Community of Practice for staff involved in the pilot.

Funding was primarily allocated towards an Embedded Harm Reduction Worker position within each organization. The Embedded Harm Reduction Worker supported clients with individualized goals and plans, advocacy, safety planning, and referrals, as well as facilitating drop-in harm reduction groups and distributing harm reduction supplies. At each organization, Embedded Harm Reduction Workers also provided harm reduction resources, supports, and training to other shelter staff and contributed to a Harm Reduction Community of Practice that was established across the three men’s emergency shelters as part of the pilot.

How was the Embedded Harm Reduction Pilot Evaluated?

The evaluation used a case study design to examine whether and how each organization enhanced or expanded their harm reduction services, principles, and practices. A case study design was chosen because, although Mission Services had already implemented the program and shared their model, each organization adapted the program to their individual organizational context. Examining each organization allowed the evaluation to better understand each organization’s baseline and priorities

¹ Hamilton’s Emergency Shelter Standards are available here: <https://www.hamilton.ca/sites/default/files/2025-02/PreventingHomelessness-Hamiltons-Emergency-Shelter-Standards-2025.pdf>

to assess what changed over the funding period (October 1, 2024 to September 30, 2025).

Staff interviews were conducted at the program’s outset and conclusion to understand how the program was implemented and what the impacts were in each organization. The purpose of the program outset interviews was to assess the current state of harm reduction and the organization’s priorities for the funding period (October 1, 2024 to September 30, 2025). The purpose of the end-of-program interviews was to assess what changed and how the program was implemented in each organization. In total, 19 interviews were held with staff across all three organizations (eight interviews at the program’s outset and 11 interviews at the program’s conclusion). Questions about priorities were informed by Toronto Public Health’s “10 Points of Harm Reduction for Shelter Programs,” which proposes ten areas of harm reduction programming for shelters to adopt.² Interview participants included Embedded Harm Reduction Workers, supervisors, managers, and senior leaders, most of whom participated in both interviews.

Organizations were also encouraged to collect and report client feedback about the program. Mission Services conducted two surveys over the program’s funding period, which included 73 responses. Salvation Army conducted brief interviews with their clients, with 13 clients participating. These data were shared with Hamilton Public Health and results are included below.

What were the Impacts of the Embedded Harm Reduction Pilot?

Overall Impacts

The goal of the program was to expand and enhance harm reduction services, principles, and practices in men’s emergency shelters, with intended outcomes that included hiring an Embedded Harm Reduction Worker, distributing harm reduction supplies, facilitating drop-in groups, training shelter staff, and contributing to a community of practice across the three organizations. Organizations reported that the program trained shelter staff, built partnerships that connected clients with healthcare and social service providers, and fostered collaboration across the three men’s emergency shelters. For clients, the program created new weekly harm reduction drop-in programs, expanded existing harm reduction programs, contributed to improved relationships with staff, distributed Naloxone, safe injection, and safe inhalation

² Toronto Public Health’s “10 Points of Harm Reduction for Shelter Programs”: <https://www.toronto.ca/wp-content/uploads/2021/06/9633-10PointShelterHarmReduction210528AODA.pdf>

supplies, and led to improved outcomes related to the goals of the program (i.e., housing, employment, familial reconciliation, treatment, and physical and mental health).

Embedded Harm Reduction Workers worked with clients on goals that ranged from obtaining housing and employment to reducing use, practicing harm reduction and safety planning, attending recovery groups, pursuing opioid agonist therapy and other treatment, maintaining sobriety, improving wellness, regular wound care, taking medication, reconnecting with family, attending counselling, court support, and other goals. Embedded Harm Reduction Workers also led weekly groups in each organization. In total, through the program, 176 drop-in groups were facilitated (39 groups at Good Shepherd, 87 groups at Mission Services, and 50 groups at Salvation Army), with each organization reporting working individually with 10 to 25 clients per month on average.

“I know it has made a difference... Our Embedded Harm Reduction Worker has provided invaluable support to shelter residents and shelter staff. She has been directly involved in responding to drug poisonings and providing aftercare and support. She has provided education, referrals, advocacy, and community navigation to shelter residents and supported a number of individuals in connecting with health and treatment services.”

– Men’s Emergency Shelter Staff (Interview)

“It’s hard to get more bang for your buck... We’re paying some salaries here and we’re seeing the impact that it’s having on all the clients, all of the programs, the staff. It’s hard to find something that has that low of a cost and that wide an impact.”

– Men’s Emergency Shelter Staff (Interview)

“If I can get 24 homeless men in a group every Wednesday, from two to three, that's a positive...They don't use that hour. They don't use a half hour before two o'clock. Not because of me saying don't use, because they want to be part of this community.”

– Men’s Emergency Shelter Staff (Interview)

Value of the Embedded Harm Reduction Worker

Having at least one frontline, dedicated full-time Embedded Harm Reduction Worker was seen as an essential facilitator for these impacts in addition to being one of the funded outcomes. As one staff described, “the Embedded Harm Reduction Worker’s presence in the shelter sends a clear message to residents that we are striving to offer a safer, more hospitable, and non-judgemental environment.” One staff provided a tangible example of the value of having an Embedded Harm Reduction Worker, “without the harm reduction pilot, I think it was harder to make referrals. There wasn’t someone in-house to direct people to. For detox, you’ll have to call multiple times. The Embedded Harm Reduction Worker is someone you can talk to right now, we can call together, and we can make a plan.” In addition to client support, the Embedded Harm Reduction Worker provided training to new staff, offered refresher training for current staff, responded to overdoses, followed up with clients after an overdose, and supported other staff when working with clients who use substances. Beyond holding these roles, having an Embedded Harm Reduction Worker as an additional staff on site was seen as another benefit.

Facilitating Collaboration Across Men’s Emergency Shelters

A key characteristic of the Embedded Harm Reduction Worker role is that they can support clients regardless of where they are living, for example, at their shelter, at another shelter, or in community. Alternatively, clients can choose to meet with a different Embedded Harm Reduction Worker if they move shelters while continuing with their same goals. This continuity and collaboration extended beyond frontline client support. As one staff noted, “it builds collaboration between the various agencies as we are approaching policies. For example, when we’re talking at the Men's Emergency Shelter Coordinating Table, we can discuss best practices on how we engage together with working with our clients.” Staff at all organizations reported that the quarterly Community of Practice established as part of the program was valuable, since it allowed them to share ideas, learn from each other’s experience, and troubleshoot challenges.

Client-Reported Impacts

Supporting clients was another key outcome of the program, and clients reported higher levels of trust, autonomy, and safety because of the program. Across two surveys conducted during the funding period by Mission Services (n=73 respondents), 95% of respondents agreed that staff were non-judgmental, trustworthy, and met them where they were at. In addition, 88% of respondents agreed they were involved as much as they wanted to be in decisions about their services and supports, and 83% of respondents agreed that staff helped them develop a plan to reach their personal goals. Notably, 99% of clients agreed that they would recommend the service if a friend needed similar help. Salvation Army also conducted brief interviews with their clients about the impacts of the program. Across 11 interviews with 13 clients, clients shared they are using unused supplies more often and that they feel that staff are more understanding because of the program. Clients also shared that they are more comfortable approaching staff in case of an overdose, and that there have been improvements in how overdoses are responded to. These data highlight how the program contributed to enhanced shelter staff capacity – through both formal training and peer-to-peer learning – related to substance use. As one staff described, the program created “far more cultural change than expected in a short time frame.”

Clients and staff reported many short-term outcomes, including that the funding created new programs and a safer shelter environment and more training for staff. However, longer-term outcomes, such as substantial changes related to housing or substance use, were acknowledged as difficult to achieve in a one-year funding period. Indeed, building rapport with clients was noted as something that takes time, with several staff describing how it can take a year or longer to do so. Mission Services shared that they learned that the program takes time before significant impacts can be observed. As one staff stated, “for something like this to work, we found you really have to give it enough time. When you're working with a population that is often very slow to change, you're just not going to see those things right away.” Staff highlighted that system constraints can also affect longer-term outcomes, since they influence the supports that are available to clients. As one staff commented, if a client “can ultimately establish helping relationships that promote safety and reduce drug poisonings and opens up conversations about next steps and personal goals and aspirations – then we need to have resources and options available to offer them.” This participant expanded that, “the people we serve in shelter need options around treatment, care, ongoing support, and they need access to housing, adequate income, connection to community, safety so that they can maintain gains made.”

Program Model Lessons Learned

Two key lessons were learned through this evaluation. First, the pilot’s program model – that is, having dedicated staff focused on one objective – was seen as a good approach for addressing priorities in the men’s emergency shelter setting. As one staff commented, “we would use this model if we had something emerging... to gain intentionality, focus, strategic, outcome-driven cultural change and policy change... I don’t think that was the intended design of the pilot to specifically create an organizational structure that we would utilize in the future, but I think it is an outcome that needs to be recognized.” Another staff expanded, “this pilot underscores my sense that embedded supports build global capacity in a program/organization.” This model could be considered for other priorities in the future.

Another lesson learned through the evaluation relates to how the program was adapted in each organization. It was not the intention of each program to replicate Mission Services’ program model – indeed, staff recognized that differences in organizational culture and approaches can be valuable for clients – though many elements of this model were implemented at Good Shepherd and Salvation Army. One of the key tenets of Mission Services’ model is that the Embedded Harm Reduction Worker role is delineated from shelter support and housing case management functions. All organizations recognized the value of this distinction since it allows the Embedded Harm Reduction Worker to foster safety and trust when working on goals with clients. Although this separation was not always possible in practice, it remains a helpful consideration when shaping future harm reduction roles in similar settings.

Evaluation Limitations

As discussed, the program was based on an existing model that each organization adapted to their context. These adaptations led to differences in program implementation that make it challenging to assess the overall impact of the program across the three organizations. As such, the case design was chosen since it is useful for exploring organizational impacts and contextual factors that affected implementation. With a longer program timeline, capturing other perspectives more consistently (e.g., hearing from program clients, shelter residents, and community partners) would have strengthened the evaluation. Further, an extended program timeline would have allowed the evaluation to better explore and capture longer term client outcomes, such as changes in housing or substance use.

YWCA Hamilton’s Safer Use Space

What is the YWCA Hamilton’s Safer Use Space?

The YWCA Hamilton’s Safer Use Space is a supervised consumption site located within Carole Anne’s Place, a low-barrier overnight drop-in for unsheltered women and gender-diverse individuals. The Space is an Urgent Public Health Needs Site established through an exemption from Health Canada and has been open since April 2022. The Safer Use Space is run in partnership with Keeping Six and the Hamilton Social Medicine Response Team (HAMSMaRT).

The \$300,000 in funding allocated to YWCA Hamilton provided operational funding to their Safer Use Space for a one-year period (April 1, 2024 to March 31, 2025). In addition to supervised consumption and providing harm reduction supplies, onsite services are available through partnerships, such as withdrawal management and support, Rapid Access Addiction Medicine, and wound care and other nursing supports. People accessing the Safer Use Space are also connected with supports available at Carole Anne’s Place.

How was the YWCA Hamilton’s Safer Use Space evaluated?

As an Urgent Public Health Needs Site, the Safer Use Space already collects and reports quantitative data. As such, this evaluation was designed to complement these program data by documenting key characteristics of the Safer Use Space and its impacts. To do this, nine interviews were conducted with current and former staff, peers, and partners of the Safer Use Space. In addition, a zine was created with people who use the space to further explore the Safer Use Space’s impacts.³ A zine is a self-published magazine featuring art and text, and the Safer Use Space had previously published a zine about the program. Three zine workshops were held between November 2024 and March 2025. Workshops focused on the guiding questions, “What does the Safer Use Space mean to you?” and “What is your fondest memory of the Safer Use Space?”. Staff from the YWCA Hamilton and Hamilton Public Health supported each workshop. The zine was shared back with people who use the Safer Use Space for their review and reflection in February 2026. In total, 20 individuals participated in the zine workshops and 14 people attended the reflection event. Minor changes were made to the zine following this event based on participant feedback. The

³ YWCA Hamilton’s “Safer Use Space Zine”: <https://ywcahamilton.org/programs-services/housing-services/low-barrier-health-care>

YWCA Hamilton also shared program data with Hamilton Public Health, and these data are included within the zine.

What are the Impacts of the YWCA Hamilton’s Safer Use Space on Women and Gender-Diverse People who use Drugs?

“Whenever I come here, I know I will get what I need. A snack, supplies, someone to talk to. I know if I come here, I don’t have to use alone. It has been good for me.”

– YWCA Hamilton Participant (Zine)

“When people are using in a calm space, and can take the time to prepare, and can get juice, it’s not that the overdoses experienced outside the space are now in the Safer Use Space, it’s that we disrupted the pattern. People can sit down, they don’t have to use fast, they can test out a new batch and use a little bit. The total number of drug poisonings that would be responded to by staff has been made much, much lower.”

– YWCA Hamilton Staff (Interview)

Overall Impacts

The intended outcomes of the funding were to reduce the risks of accidental overdose, reduce strain on emergency medical services, provide basic health services such as wound care, increase access to unused drug use equipment, connect people to social services, healthcare, and treatment, and provide space for people to connect with staff and peers. In the year of funding provided by the City of Hamilton, the Safer Use Space had 7,117 visits across over 500 unique guests (i.e., approximately 20 visits per day). In total, there were 1,599 visits for supervised consumption, 734 visits for wound care, and 4,395 visits for harm reduction. The Safer Use Space also had 168 visits for reproductive care, 186 referrals to healthcare providers, and 20 referrals to detox.

Critically, 45 drug poisonings were reversed in the space, and there have never been any deaths in the space. One piece of art in the zine also reflects on this key function of the Safer Use Space by listing people who they know that have passed because of a drug poisoning. As the art piece states, “if we had more spots, less names.” The zine’s cover photo further expands, “Every life saved is another chance for us to save ourselves. Every time we get a second chance is a possibility to start living.”

Data from other supervised consumption sites across Canada reinforce how the Safer Use Space can reduce risk of accidental overdose and strain on emergency medical services. From April 1, 2024 to March 31, 2025, across Canada, supervised consumption sites had 559,922 visitors and responded to 7,993 overdoses (i.e., approximately one overdose per every 82 visits).⁴ For the same period, the Safer Use Space had 7,117 visits and responded to 45 drug poisonings (i.e., approximately one overdose per every 158 visits). Similarly, the Safer Use Space made fewer calls to emergency services and police services when compared to data from other supervised consumption sites across Canada.

Impacts reported by participants include and extend beyond harm reduction, including how the space facilitates connection with staff and peers. Clients who use the space reported a high level of trust with staff and peers and that they felt safe and supported within the space and when accessing services as part of Carole Anne’s Place. As one zine contributor summarized, the Safer Use Space is “a warm friendly place to safely use. It has been such a relief knowing I had a safe clean place to go whenever to get “gear”, harm reduction, wound care, a snack, or a place to use, this place was there for me.” Another zine participant described how the Safer Use Space “is a community. Just knowing this place is here, day or night, even on holiday days – it means a lot to me.”

Benefits of Co-Locating Safer Use Space and Carole Anne’s Place

Having the Safer Use Space as part of Carole Anne’s Place assisted with fulfilling one of the program outcomes to connect people to social services. Through Carole Anne’s Place, people who use the Safer Use Space can be connected to supports including overnight shelter, meals, access to showers and basic needs, low barrier healthcare, systems navigation and shelter referrals, counselling, justice support, and advocacy. Further, staff commented that having the Safer Use Space as part of Carole Anne’s Place means there were fewer service restrictions, which leads to better client outcomes. As one staff described, “a lot of people are going to be using substances in

⁴ Health Canada. Supervised consumption sites: dashboard [Internet]. Ottawa (ON): Government of Canada; 2025 Sep 19 [cited 2026 Feb 20]. Available from: <https://health-infobase.canada.ca/supervised-consumption-sites/>

shelters, so when you have a space where people can use and it’s not against the rules then it means that people have a much better shot of succeeding in the program.”

Having safe consumption within Carole Anne’s Place was noted by the participants to improved client safety, which also contributes to reducing strain on emergency medical services. As one interview participant described, “we get to be with people from start to finish, so if they were to experience a drug poisoning, we know exactly what happened. We can respond better, and it is a less stressful and traumatic response.” At the time of data collection, it was noted there had not been a drug poisoning in the adjacent Carole Anne’s Place since the Safer Use Space opened.

Key Facilitators of the Safer Use Space

Across zine participants and staff interviews, the Safer Use Space itself was often highlighted. As one zine participant said, the Safer Use Space “is inviting – you feel comfortable here.” A staff participant expanded, “people really appreciate a non-clinical environment. We have so much art in the room, and people will come in with things that they think are beautiful and want to give them to the space.” Peers and staff also contribute to this experience. As one participant shared, “Staff make you feel safe and calm... They care to listen to our story and see us as people and treated us as such.” Another participant described, “the peers help provide a more personal connection; they have helped establish trust... the experience and connection is authentic, genuine.” Having the Safer Use Space as part of Carole Anne’s Place has also contributed to better relationships between staff and clients since the Safer Use Space opened. As one staff explained, “The way we can be much more open with each other has improved the way that staff and clients can relate to each other... Staff aren’t watching over you to surveil you, but because they care about you.”

The Safer Use Space is also tailored to the people that Carole Anne’s Place serves. Staff noted they can offer gendered health programming in the space, including a focus on reproductive health or menopause and substance use. In addition, the Safer Use Space is a place where “women can also come and take a break from their partner or living outside with this program. Women are safer from gender-based violence, since they are at a higher risk when substance affected.” These aspects of the Safer Use Space were seen as important components that contribute towards the program’s outcomes, and reduce the harms related to drug use that are experienced by women and gender-diverse individuals.

Evaluation Limitations

Workshops and the reflection event were designed to be welcoming and appreciative spaces, held within the Safer Use Space and supported with food and a participant

incentive. These activities occurred in the evening before the Safer Use Space opened to ensure participation was voluntary and to allow more people to be present in the space at one time. This also meant that participation was likely limited to people at the YWCA Hamilton that evening. However, the Safer Use Space can be accessed overnight by women and gender-diverse individuals regardless of whether they are accessing the YWCA Hamilton. In addition, the creative nature of the zine method required participants to feel comfortable with the activities and sharing their perspectives in this way. As a result, some experiences of the Safer Use Space may not be represented in the zine.

Drug Checking and Surveillance System Pilot

What is the Drug Checking and Surveillance Pilot?

The goal of Drug Checking and Surveillance Pilot was to provide information to Hamilton Public Health, community partners and individuals who are using substances about the toxic unregulated drug supply. The Drug Checking and Surveillance System Pilot has not yet been fully implemented. Capital funds (\$100,000) were designated to purchase a point-of-care testing device(s) that would support surveillance of the circulating drug supply and additional funds were provided to support a Drug Test Strip Kit Pilot. To date, capital funds have not been spent on a point-of-care testing device and this option continues to be explored by Hamilton Public Health and community partners.

What is the Drug Test Strip Kit Pilot?

The objectives of the Drug Test Strip Kit Pilot were to increase community access to harm reduction tools and increase community awareness and knowledge of the unregulated drug supply. Fentanyl and xylazine test strips were selected for distribution after conducting a survey with people with lived and living experience, who identified these substances as of interest in the local drug supply. Drug test strips are a harm reduction tool made available to help people who use drugs check whether a drug contains a single substance (e.g., fentanyl or xylazine). This knowledge can be used to make informed decisions about their use of the drug that was tested. They are not intended to be used as a surveillance tool to understand the local drug supply, and individuals who use test strips are not expected to report their results.

Fentanyl test strip kits and xylazine test strip kits have been distributed by Hamilton Public Health and community partners since May 2024. The start of the Drug Test Strip Kit Pilot coincided with a one-time opportunity through the Ontario Harm Reduction

Distribution Program to receive drug test strips free of charge for local distribution. Hamilton Public Health received 4600 xylazine and fentanyl test strips and supporting supplies from the Ontario Harm Reduction Program. Hamilton Public Health acquired a total of 16,800 fentanyl and 16,800 xylazine test strip kits and supporting testing supplies with the funds that were made available, at a total cost of \$78,030.80. An additional order for test strips was made in November 2025 to allow for ongoing distribution of testing kits through funds were available in the Mental Well-Being and Substance Use Program budget. Of the acquired kits, approximately one-third of the test strip kits remain and continue to be distributed by Hamilton Public Health and community partners.

The program began in May 2024 within Hamilton Public Health before being expanded to other community organizations. Each kit can test five drug samples, and includes test strips (five), soap wipes, micro-scoops, mixing cups or cookers, and sterile water ampules, as well as an instruction sheet developed by Hamilton Public Health. Clients are provided with information about how to use the test strip kits, the benefits and limitations of the tests, and harm reduction education. Service providers are trained through a “Train the Trainer” model, where a subset of staff from community organizations are trained by Hamilton Public Health. These staff train other staff within their organizations.

How was the Drug Test Strip Kit Pilot evaluated?

The evaluation included a survey for people accessing test strip kits and key informant interviews. It was initially proposed to conduct the surveys in-person through Hamilton Public Health’s Van Needle Syringe Program and an online survey that could be accessed through a quick response QR code on the kits. However, online survey uptake was low, and it was challenging to conduct surveys on busy Van shifts. Another key distributor of test strip kits, Positive Health Network, agreed to administered paper surveys. In total, 38 survey responses were received, most of which were collected by Positive Health Network. In addition, nine interviews were conducted with staff from Hamilton Public Health and community organizations that distribute the test strip kits. These interviews focused on how the pilot was going (i.e., successes, challenges, opportunities, and recommendations) and observed impacts of the program.

What are the impacts of the Drug Test Strip Kit Pilot?

Overall Impacts

The intended outcomes of the program were to increase community access to harm reduction tools and increase community awareness and knowledge of the unregulated

drug supply. With respect to access, between May 2024 and December 2025, three Hamilton Public Health programs and 13 community partners have distributed 4,524 drug test strip kits to individuals in the community. Kits were nearly evenly distributed between fentanyl (51%) and xylazine (49%), with over half of survey respondents (59%) reporting using both kit types. Survey respondents reported various testing frequencies for increasing their knowledge of the unregulated drug supply, with 32% testing whenever they had a new batch/supply, 29% testing every time, and 29% testing sometimes. Among people surveyed, 100% found test strips easy to use.

Test Strip Results Influence Drug Use Practices

Clients reported changes in behaviour based on test strip results. Nearly three-quarters of survey respondents (73%) share test results with other people, most often with friends or people they know (70%), in turn increasing awareness and knowledge of the unregulated drug supply. In addition, half of survey respondents (52%) shared that results change how they use drugs, including not using alone (21%), disposing of the drug (15%), and starting with a lower dose (9%). These results align with the literature on test strip kits and behaviour change. For example, a study in British Columbia found that 27% of individuals reported safer or more positive behaviour changes after fentanyl was detected,⁵ and a rapid review by Public Health Ontario reported that fentanyl test strip use led to increased risk reduction behaviours among 45.2% to 100% of participants.⁶ Clients also expressed appreciation for the program in survey responses.

Drug test strips contributing to increased awareness and behaviour changes are important to note in the context of toxicology reports from confirmed accidental opioid-related deaths in Hamilton. Between Q1 2023 and Q1 2025, fentanyl was identified in 83.2% of opioid-related deaths, while 4.4% of deaths from the same period have involved xylazine.⁷ In addition, toxicology reports note that stimulant(s) were frequently involved in opioid-related deaths. The most common combinations were cocaine and fentanyl (51.2%) and methamphetamine and fentanyl (41.7%). One of the benefits

⁵ Klaire, S., Janssen, R. M., Olson, K., Bridgeman, J., Korol, E. E., Chu, T., Ghafari, C., Sabeti, S., Buxton, J. A., & Lysyshyn, M. (2022). Take@home drug checking as a novel harm reduction strategy in British Columbia, Canada. *International Journal of Drug Policy*, 106, 103741. <https://doi.org/10.1016/j.drugpo.2022.103741>.

⁶ Ontario Agency for Health Protection and Promotion (Public Health Ontario). (2024). Test strips for drug checking. https://www.publichealthontario.ca/-/media/Documents/T/24/test-strips-drug-checking.pdf?rev=ca581112e55d4303aaa6d24e96553ced&sc_lang=en.

⁷ Hamilton Board of Health Report BOH25029 “Hamilton Opioid Information System Semi-Annual Update (September 20, 2025): <https://pub-hamilton.escribemeetings.com/filestream.ashx?DocumentId=476495>

identified from clients and service providers was that drug test strips are useful to test stimulants, such as cocaine and methamphetamine, for fentanyl contamination. This is a benefit that is also noted in the literature.⁸

Drug Test Strips Support Health Education

Service providers noted several benefits of test strip kits. One service provider explained, “this is a good way to talk about the uncertainty of the drug supply... It’s a nice opportunity for health teaching.” This improved engagement has other benefits. As one service provider described, “I think it is helping with reducing stigma, I believe it is bringing out those open conversations.” Knowing more about the drug supply, and how this knowledge may change an overdose response, was seen as another benefit. As a service provider summarized, “knowing what is in the drug supply helps us teach people about the presentation and how the response might change.”

Opportunities to Improve the Program

One limitation of test strip kits is that they only test for one substance, which is a challenge given the toxic drug supply and a drug supply that is constantly changing. Service users and providers suggested that test strips for benzodiazepines, medetomidine, nitazene, and ketamine would be helpful. As the drug supply continues to evolve and change, so does the availability and utility of the drug test strip available. In addition, from Q1 2023 to Q1 2025, 48% of opioid toxicity deaths in Hamilton involved one or more unregulated benzodiazepines, further suggesting that there may be utility in having other drug test strips available.

Two comments were also received from survey respondents about test strip kits not always being available. While it is difficult to know what specifically affected availability for these participants, test strip kits have many components, and, at times, Hamilton Public Health may not have enough kits ready for pickup. Additional staff have been supporting kit making to help mitigate this challenge, but it is an important consideration should other drug test strip kits be explored, especially those that have different components (e.g., benzodiazepines). Both clients and service providers also expressed wanting to know what other drugs might be in each sample and the composition of tested drugs. This suggests that there remains opportunity to explore additional models of drug checking such as a point-of-care device and/or options to access mass

⁸ Reed, M. K., Roth, A. M., Tabb, L. P., Groves, A. K., & Lankenau, S. E. (2022). “I probably got a minute”: Perceptions of fentanyl test strip use among people who use stimulants. *International Journal of Drug Policy*, 92, 103147. <https://doi.org/10.1016/j.drugpo.2021.103147>

spectrometry, which is better able to identify trace substances and novel/emerging substances in a sample than Fourier Transform Infrared (FTIR) point-of care testing.

Evaluation Limitations

Relative to the number of drug test strip kits distributed, survey completion was low. This is not surprising given both the nature of the intervention and the survey modalities available. Drug testing is brief and may occur discreetly, and accessing an online survey can present barriers for participants while paper-based survey collection was not always feasible. In future implementations of similar surveys, providing a small incentive may help increase survey completion.

Conclusion

Overall, these Hamilton Opioid Action Plan initiatives achieved their objectives and demonstrated positive outcomes. These three initiatives were funded through the Hamilton Opioid Action Plan and further shaped through consultation with the Hamilton Drug Strategy Steering Committee, the Hamilton Opioid Action Table, community partners responsible for implementation, and the people who participated in them. The reported impacts of these programs – enhanced harm reduction supports in men’s emergency shelters, 45 reversed drug poisonings, and changes in substance use behaviours informed by drug test strip results – demonstrate the value of designing, implementing, and evaluating programs in partnerships with community members and the organizations that serve them. As one staff member reflected about the Embedded Harm Reduction Pilot, “the program is valuable. It has helped save lives. It has helped people feel seen, and heard, and supported.” Moving forward, continued collaboration with community organizations and through the Hamilton Drug Strategy will continue to be essential to reducing the harms associated with substance use in Hamilton.

